

**Response to the OEP call for evidence on 'Improving Nature delivery - halting England's decline in species abundance by 2030 and further restoring it'**

Wildlife and Countryside Link, August 2023

**Covering letter:**

Thank you for this opportunity to provide evidence on nature recovery and the species abundance targets in England.

[Wildlife and Countryside Link](#) is a coalition of 76 environmental organisations in England, using their strong joint voice for the protection and enhancement of nature. This Link response is supported by: Amphibian and Reptile Conservation, Bat Conservation Trust, Born Free Foundation, Buglife, Bumblebee Conservation Trust, Butterfly Conservation, Campaign for National Parks, Froglife, Institute for Fisheries Management, Marine Conservation Society, National Trust, ORCA, People's Trust for Endangered Species, Plantlife, Rivers Trust, RSPB, Seal Research Trust, The Wildlife Trusts, Woodland Trust, WWF-UK, and ZSL.

The species abundance targets in England are feasible given sufficient political will, but large-scale, joined-up and urgent action is needed to achieve the targets and genuinely recover species in England.

The Government should publish and implement a cross-departmental plan to deliver the species targets in England, with monitoring to deliver and assess progress, and significantly increased resourcing which matches the scale of the challenge.

In our response we have highlighted the key interventions for species protection legislation and its implementation, and for species in the terrestrial, marine, and freshwater environments to ensure their recovery and achievement of the species abundance targets.

We would welcome the opportunity to discuss our response with you in further detail. For more information about this response, please contact Eleanor Ward ([eleanor@wcl.org.uk](mailto:eleanor@wcl.org.uk)), Matt Dawson ([matthew@wcl.org.uk](mailto:matthew@wcl.org.uk)) and Emma Clarke ([emma.clarke@wcl.org.uk](mailto:emma.clarke@wcl.org.uk)).

## Questions:

### **1. Considering the government's species abundance targets, to what degree do you consider these achievable in England's terrestrial, freshwater, and marine environments? What assumptions affect your consideration of feasibility?**

The Government's legally-binding targets to halt the decline in species abundance by 2030 and then to increase species abundance by at least 10% to exceed 2022 levels by 2042 are feasible.

Achieving the Government's legally-binding targets and genuinely recovering species abundance in England is feasible, but **large-scale and urgent action is needed now**. The scale of challenge is immense; but so is the cost of failure.

Firstly, there is a risk that the domestic legislative framework is not sufficient to meet international commitments and genuinely achieve species recovery. **There is a lack of coherence between the Global Biodiversity Framework and the Environment Act species targets**. It is not clear how the England targets to halt the decline in species abundance by 2030 and then increase species abundance by at least 10% to exceed 2022 levels by 2042 are consistent with, or will help deliver, the UK's international commitments in the Global Biodiversity Framework to 'increase the abundance of native wild species to healthy and resilient levels' by 2050.<sup>1</sup>

Link has previously raised concerns that the long-term species (2042) abundance target was not sufficiently ambitious. In Link's response to the targets consultation in 2022, we flagged that the target's baseline of 2030 adds considerable ambiguity to the desired outcome and potential confusion.<sup>2</sup> A future baseline makes it impossible to provide a meaningful analysis of the level of ambition being proposed, but given the trajectory of recent declines and the slow progress with the roll out of Environmental Land Management schemes and other measures to recover nature foreseen by the Environment Act, it is reasonable to expect this trend to continue before a halt is hopefully achieved by 2030. As a result, the species abundance target for 2042 could be set at 2022's already depleted levels, or potentially even lower. This would be unambitious, out of step with the government's pronouncements and lacking the vision to drive a genuine step change in policy to halt and reverse declines. **If nature is to be on a trajectory to recover by 2050 – in line with ambitions being set by the CBD – then a figure of at least 20% uplift on a 2022 baseline is the order of stretching target needed.**<sup>3</sup>

There are also **significant gaps in the species abundance metric which will be used to assess progress and achievement of the species abundance target.**<sup>4</sup> We remain concerned at the poor representation of some important taxa in the indicator, such as the very limited number of marine species, of freshwater and migratory fish, and of pollinators and other invertebrates (excluding bumblebees and lepidoptera). Efforts should be made to broaden species coverage further.

Risks in using limited datasets are likely to result in ambiguity in the indicator. Relying on a limited list of species has the potential to introduce selection bias if trends in species included are not random with respect to the 'population' of species the indicator is supposed to represent.<sup>5</sup>

<sup>1</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/105444/dec-15-co-p-15-dec-04-en.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/105444/dec-15-co-p-15-dec-04-en.pdf)

<sup>2</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/105444/dec-15-co-p-15-dec-04-en.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/105444/dec-15-co-p-15-dec-04-en.pdf)

<sup>3</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/105444/dec-15-co-p-15-dec-04-en.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/105444/dec-15-co-p-15-dec-04-en.pdf)

<sup>4</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/105444/dec-15-co-p-15-dec-04-en.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/105444/dec-15-co-p-15-dec-04-en.pdf)

<sup>5</sup> Magurran, A.E., Baillie, S.R., Buckland, S.T., Dick, J.M., Elston, D.A., Scott, E.M., Smith, R.I., Somerfield, P.J. and Watt, A.D., 2010. Long-term datasets in biodiversity research and monitoring: assessing change in ecological communities through time. *Trends in ecology & evolution*, 25(10), pp.574-582.

Meaningful trends can easily be missed if, for example, increases in species which are mostly monitored opportunistically mask the loss of other species.<sup>6</sup> Biases introduced by over-representation of well-studied and monitored groups have been shown to underestimate declines.<sup>7</sup> For example, caution should be taken before including species with limited ranges (whose decrease or increase may severely skew the trend) or reintroduced species (such as beaver and pine marten, where marginal increases in relatively short periods will bias the index).

Opportunistically collected data, including those gathered by citizen scientists, can create habitat distribution models. We as a nation have a history of genuine interest in the natural world, and a general public willing to engage as citizen scientists. It is possible to derive trends from more opportunistic data, for example, of reporting rates, which agree with reported trends from structured schemes for some species, but not for others.<sup>8</sup> The best potential to improve wildlife monitoring is through integrating structured and unstructured citizen science data.<sup>9,10</sup> Where additional taxa are not currently represented and a combined approach is not yet possible due to the absence of structured data, using an unstructured approach is better than excluding whole groups of taxa completely.

Incorporating opportunistically collected data on a broader group of species offers a chance to assess the overarching target using robust population abundance data and opportunistically collected data, which can be analysed with occupancy modelling techniques, to calculate trends which represent changes in distribution (occupancy) in lieu of detailed abundance data which is only available for a small proportion of taxa.<sup>11</sup> This analysis offers the chance to address the poor representation of some important taxa in the indicator, such as the limited number of marine species, the limited number of pollinators apart from bumblebee taxa and Lepidoptera, and key indicators of ecosystem health such as amphibians.

There is a risk that action to protect the marine environment is placed on the back burner if the species abundance target is not revised to include additional marine species. At present, the Government notes that “our proposed index does not contain any datasets from purely marine organisms. There are a small number of seabird species, which nest on land but forage at sea. Thus, the index (described below) is essentially an index of terrestrial and freshwater biodiversity.” Seabird productivity can be a good indicator of some changes in the marine environment, such as fisheries pressures.<sup>12</sup> The Government notes that “it is likely that suitable data for marine species in England’s waters does exist, but that substantial further development would be required to make these data suitable for inclusion in the index. Targets for marine species are included in the UK Marine Strategy.” We recommend the Government develop a separate marine abundance/occupancy indicator, as is the case in Scotland.<sup>13</sup>

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<sup>6</sup> [de Heer M., Kapos V. & ten Brink B.J.E.](#) 2005 Biodiversity trends in Europe: development and testing of a species trend indicator for evaluating progress towards the 2010 target *Phil. Trans. R. Soc.* B360297–308

<sup>7</sup> McRae L, Deinet S, Freeman R (2017) The Diversity-Weighted Living Planet Index: Controlling for Taxonomic Bias in a Global Biodiversity Indicator. *PLoS ONE* 12(1): e0169156.

<sup>8</sup> Boersch-Supan et al. 2019 <https://doi.org/10.1016/j.biocon.2019.108286>

<sup>9</sup> Boersch-Supan, P.H. and Robinson, R.A., 2021. Integrating structured and unstructured citizen science data to improve wildlife population monitoring. *bioRxiv*.

<sup>10</sup> Sun, C.C., Hurst, J.E. and Fuller, A.K., 2021. Citizen science data collection for integrated wildlife population analyses. *Frontiers in Ecology and Evolution*, 9, p.682124

<sup>11</sup> van Strien, A.J., Meyling, A.W.G., Herder, J.E., Hollander, H., Kalkman, V.J., Poot, M.J., Turnhout, S., van der Hoorn, B., van Strien-van Liempt, W.T., van Swaay, C.A. and van Turnhout, C.A., 2016. Modest recovery of biodiversity in a western European country: The Living Planet Index for the Netherlands. *Biological Conservation*, 200, pp.44-50.

<sup>12</sup> <https://www.sciencedirect.com/science/article/abs/pii/S1470160X13003981?via=ihub>

<sup>13</sup> <https://www.nature.scotland/marine-an-terrestrial-species-indicator-experimental-statistic>



We favour the addition of species to the indicator over time to make it more representative of England's biodiversity, and the development of a separate marine indicator. Of course, the incorporation of new abundance trends for any new taxa needs careful consideration and a full scientific evaluation to ensure the scientific rigour of the species abundance indicator is maintained and that bias and imprecision are not introduced. With this in mind, any new species abundance indicator for England to be used by the government will need to undergo a transparent process of independent scientific evaluation and peer review.

Also, the index should be accompanied by a full breakdown by key taxonomic group, species, habitat type and at different functional spatial and temporal scales, supported by local case studies, to make it useful and easier to interpret. Indicator species should be included that raise the alarm when they disappear or decline below a particular threshold.

The need for better monitoring of species is a key theme throughout our response. Currently, budget cuts have resulted in Natural England lacking the resources to fulfil even their statutory monitoring obligations of SSSIs,<sup>1415</sup> regardless of species monitoring. Significantly increased resources and the right skills and expertise to conduct monitoring, especially of underrepresented taxa, will be needed to support better species monitoring in England. Another key mechanism to support that monitoring is through JNCC's surveillance portfolio which funds a range of terrestrial surveillance schemes (such as the Breeding Bird Survey (BBS), Wetland Bird Survey, Butterfly Monitoring Scheme, National Bat Monitoring Programme (NBMP), Pollinators Monitoring Scheme (PoMS), National Plant Monitoring Scheme (NPMS)), as well as the Seabird Monitoring Programme. Expanding these schemes to improve the representativeness of the data that they produce from less-well monitored regions or habitats will help address concerns about the representativeness of the populations monitored by the abundance metric. Many under-surveyed taxa are already covered by national recording schemes. Greater support of these schemes, potentially alongside the development of additional new schemes, including using citizen scientists to produce structured monitoring data (as in the case of BBS, NPMS, PoMS, NBMP, and Bumblebee Conservation Trust's BeeWalk) may also provide a relatively efficient way to address some of these evidence gaps.

There are other opportunities for the Government to improve species monitoring, such as setting data standards and creating a UK data portal. We urge the Government to review and implement the recommendations of the Geospatial Commission's report on Mapping the Species Data Pathway.<sup>16</sup> Ultimately, targets can only be seen to be met if there is sufficient investment in data collection and analysis.

The feasibility of the targets will be impacted by several factors which must be addressed by the Government in order to achieve the species abundance targets.

**The effects of climate change on species and habitats and the importance of adaptation to a changing climate should be embedded in the Government's planning and delivery of the species abundance targets.** While there is a passing reference to tackling climate change as essential to delivering the Government's species abundance targets, there is no strategic join up nor specific plans for adaptation and mitigation to manage the inevitable impact of climate change on species' habitats, distribution and abundance.

<sup>14</sup> <https://www.theyworkfordyou.com/wrans/?id=2021-02-09.151834.h&s=%27S%27#g151834.r0>

<sup>15</sup> <https://publications.parliament.uk/pa/cm5801/cm5801/mselec/01-written-evidence-biodiversity-and-ecosystems.pdf>

<sup>16</sup> <https://www.gov.uk/government/publications/mapping-the-species-data-pathway-co-nnecting-species-data-flows-in-england/mapping-the-species-data-pathway-co-nnecting-species-data-flows-in-england-executive-summary-and-technical-summary-and-recommendations#executive-summary>

This lack of consideration of the impacts of climate change occurs across Government. For example, the Government's Strategic Policy Statement to Ofwat, which sets out Government's priorities for the regulation of the water sector in England, does not include climate adaptation and mitigation within the four top strategic priorities.<sup>17</sup>

Beyond the consistent decline of species abundance over the past several decades in England, the quality and integrity of the wider natural environment which underpin healthy ecosystems and species populations is also poor.<sup>18</sup> **The Government has failed time and time again over recent years to meet environmental targets and ambitions, contributing to the overall degradation of the environment.**

For example, the state of the water environment is notoriously poor, with no English river, lake, estuary or coastal waterbody currently considered to be in 'good' overall health. This is due to all failing to achieve good chemicals status under the Water Framework Directive (WFD). Just 16% of waterbodies meet Good Ecological Status – this decreases to a mere 14% for rivers.<sup>19</sup> 13% of freshwater species are threatened with extinction.<sup>20</sup> Recent targets have failed to drive action. Under the Water Framework Directive, all English waterbodies should have been restored to overall good health by 2015. This initial target was missed, as was a second 2021 deadline. Though a 2027 deadline for all waters to reach Good Ecological Status remains in statute, Government has yet to reaffirm its commitment to achieving this target, or to demonstrate how its suite of policies will deliver this. It will be immensely challenging to meet the Government's species abundance targets in England's freshwater environment given the current critical condition of these habitats. Freshwater environments are key areas where biodiversity surveillance should be enhanced and better reported on.

Evidently, business as usual will not work. **A step change in Government action and investment is needed to reverse the decline of the wider natural environment, in order to support the achievement of the legally-binding species targets**, as well as Government's other environmental targets and ambitions. The nature sector has recently come together behind five key asks which would make a significant contribution to delivering the species abundance targets. These were recently launched as part of the Nature 2030 campaign,<sup>21</sup> including:

- **A major increase in public spending for nature**, doubling the nature-friendly farming budget to pay for an increase in ambitious agroecological action and large-scale nature restoration.
- **A Nature Recovery Obligation**, legislating for mandatory climate and nature transition plans, and setting new duties to require private sector funding for species and habitats recovery.
- **A 30x30 rapid delivery programme**, restoring protected sites and landscapes, and creating a Public Nature Estate to fulfil the promise to protect 30% of the land and sea for nature.
- **A National Nature Service**, delivering wide scale habitat restoration and creating green jobs in urban, rural and coastal habitats and in species recovery.
- **A Right to a Healthy Environment**, establishing a human right to clean air and water and access to nature.

In addition to these and other large-scale policies and investment needed to reverse the decline of the wider natural environment in England, achieving the species abundance targets will also require

<sup>17</sup> <https://www.gov.uk/government/publications/strategic-policy-statement-to-ofwat-incoming-social-and-environmental-guidance/february-2022-the-government-strategic-priorities-for-ofwat>

<sup>18</sup> <https://nbn.org.uk/wp-content/uploads/2019/09/State-of-Nature-2019-UK-full-report.pdf>

<sup>19</sup> <https://www.data.gov.uk/dataset/41cb73a1-91b7-4a36-80f4-b4c6e102651a/wfd-classification-status-cyle-2>

<sup>20</sup> State of Nature. (2016). <https://www.rspb.org.uk/globalassets/downloads/documents/conservation-projections/state-of-nature/state-of-nature-uk-report-2016.pdf>

<sup>21</sup> [https://www.wcilo.org.uk/docs/assets/uploads/Nature\\_2030\\_Report\\_Web\\_18.07.2023.pdf](https://www.wcilo.org.uk/docs/assets/uploads/Nature_2030_Report_Web_18.07.2023.pdf)

strategic and join-up thinking and action within the Government's existing legislative and policy frameworks. **There is a lack of coherence with the Government's environmental ambitions and the targets framework, for example, there is no legally binding target for the condition of protected sites on land and an overall water target, which are essential to driving action for nature recovery and supporting species abundance.**

Protected sites, such as Sites of Special Scientific Interest (SSSI) in England, have enormous potential to support nature's recovery and underpin the attainment of the species abundance and extinction risk targets, and there is strong evidence that they work. The Making Space for Nature Report found that the majority of the species in England occur on SSSIs. For example, 88% of the UK's vascular plants, 70% of threatened bryophytes and 100% of BAP butterfly species are represented in the SSSI network.<sup>22</sup> They have been shown to assist species' responding to climate change and are associated with population increases in the most conservation-dependent species.<sup>23, 24</sup>

Protected areas should be at the heart of a resilient ecological network but need to be more than lines on a map if they are to support nature's recovery - the important species and habitats features for which they are designated should be in good or actively recovering condition. But despite non-binding targets in various policy documents over many years, particularly in the 25 Year Environment Plan (25YEP), these have failed to provide the impetus to prioritise improvements to these sites. Still less than 40% of SSSIs in England are in favourable condition.<sup>25</sup> We urge the Government to adopt a legally binding target for the condition of protected sites so that by 2042, at least 75% of SSSIs should be in favourable condition, in line with the 25 YEP goal, and the remaining 25% showing evidence, based on monitoring, that SSSI features are making progress towards ecological recovery.

The Government has not included an overall or 'apex' target for water within the Environment Act. Although the influence and requirements of the WFD Regulations will remain, with the passing of the 2027 target date we will be without a specific future overarching target to act as a long-term regulatory driver of holistic action to improve the freshwater environment. Though the four water targets within the Environment Act framework are helpful, they lack ambition and rely too heavily on monitoring and self-reporting.<sup>26</sup> Furthermore, the lack of an overall target means that progress could be made against these discrete sector-based targets whilst overall water quality and environmental condition - including the diversity and abundance of species - does not improve. It is therefore unclear how the species abundance targets can be achieved without a refreshed water apex target.

There is also a lack of join up between the Government's environmental targets and ambitions and its delivery plans. **There is no strategic and costed plan to deliver and monitor progress towards the species abundance targets.** Nor is there sufficient integration of species into other environmental and other Government policies (e.g., agriculture, planning and development, and procurement) and understanding of how they will contribute to achieving the species abundance target.

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<sup>22</sup> <https://www.gov.uk/government/news/making-space-for-nature-a-review-of-england-s-wildlife-sites-published-to-day>

<sup>23</sup> Thomas et al (2012) 'Protected areas facilitate species' range expansions'

<https://www.pnas.org/doi/full/10.1073/pnas.1210251109>

<sup>24</sup> Thomas et al (2023) 'Rare and declining bird species benefit most from designating protected areas for conservation in the UK'. <https://doi.org/10.1038/s41559-022-01927-4>

<sup>25</sup> <https://www.gov.uk/government/statistics/england-bio-diversity-indicator-1-extension-and-condition-of-protected-areas#:~:text=Over%20the%20past%205%20years,2003%20to%2050.8%25%20in%202022>

<sup>26</sup> For further detail: Wildlife and Countryside Link. (2023).

[https://www.wc.l.org.uk/docs/The%20Environmental%20Targets%20\(Water\)%20\(England\)%20Regulations%202022%20-%20Link%20and%20Green%20UK%20Briefing%202020.01.23.pdf](https://www.wc.l.org.uk/docs/The%20Environmental%20Targets%20(Water)%20(England)%20Regulations%202022%20-%20Link%20and%20Green%20UK%20Briefing%202020.01.23.pdf)

Further, the current UK Marine Strategy is failing to deliver Good Environmental Status and is not adequately suited to achieve 30x30 obligations. The strategy should be revised as a new 'Ocean Recovery Strategy' with ambitious interim and long-term targets and policy programmes to move our seas into a state of recovery. Such a revision should lay out a clear path to delivering the marine 2030 target and achievement of Good Environmental Status in our wider seas, ensuring that at least 30% of UK oceans are fully or highly protected by 2030.<sup>27</sup>

In summary, the species abundance targets are feasible given sufficient political will, but large-scale, joined-up and urgent action is needed to achieve the targets and genuinely recover species in England. The Government should publish and implement a cross-departmental plan to deliver the species targets in England, with monitoring to deliver and assess progress, and significantly increased resourcing which matches the scale of the challenge.

**2. Considering the 8 areas of action set out in EIP23 and other actions, what are the main interventions, or types of interventions, required to achieve the species abundance targets in England's terrestrial, freshwater and marine environments. Regarding these interventions, what scale and pace of deployment is required to achieve success?**

Effectively implement and strengthen species legislation and policy:

To reverse the long-term decline of species, we need more widespread and better protection for species and greater emphasis on recovery of species, covering capital works, ongoing management, and monitoring & analysis, especially given the increasing urgency and scale of climate change

The legislation that protects species across terrestrial, freshwater and marine environments, including the Habitats Regulations, should be more effectively implemented and enforced and, if there were to be reform, could be strengthened.

While the implementation of the Habitats Regulations could be improved to work better for nature and species and those involved in the system, the Regulations are effective and the legislation is fit-for-purpose, as suggested by Defra's own review in 2012. **The Habitats Regulations should be retained, strengthened and better implemented to improve their effectiveness for nature, people, and those interacting with the regulatory regime.**<sup>28</sup>

The Habitats Regulations cover the sites of greatest significance and international importance for nature, for which the UK has a special responsibility: breeding and resting sites for rare and threatened species, plus precious natural habitats that are at risk. Species listed for strict protection under the Habitats Regulations are also afforded a higher level of protection compared with domestic laws.<sup>29</sup> For example, as well as protection from killing, capture and disturbance, listed species are protected from disturbance and damage of their habitats which could impair their ability to survive, reproduce, hibernate or migrate, or which could affect the local population. The protection offered by the Habitats Regulations against disturbance is broader, beyond just species'

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<sup>27</sup> [https://www.wc.l.o rg.uk/doc s/assets/up lo ads/E LUK UKM S\\_p3 Po M respo n se 1. pdf](https://www.wc.l.o rg.uk/doc s/assets/up lo ads/E LUK UKM S_p3 Po M respo n se 1. pdf)

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<https://www.wc.l.o rg.uk/doc s/L ink% 20briefi ng% 20o n% 20Ha bs% 20Regs% 20ri sks% 20an d% 20o ppo rt uniti es% 20Jan% 202023. pdf>

<sup>29</sup> In the marine environment, Defra policy is to treat all MPAs the same no matter what designation underpins them - this must continue to be the case: <https://co nsult. defra. gov.uk/marine - plann ing- l ic ens ing- team/m pa - co mpens ati o n- gui danc e- co nsultati o n/su ppo rtin g do c ume nts/mpaco mpens ato r ymeasure s best prac ti c eguidanc e.pdf>.

‘individual resting places,’ which is an additional and essential layer of protection on top of that offered to species by the Wildlife and Countryside Act 1981 (as amended).

Through the Environment Act 2021 and the Retained EU Law Act 2023, the Government gave itself powers to amend, revoke or replace the Habitats Regulations, as well as thousands of other pieces of EU-derived legislation. Further powers and reforms are being considered as part of the Levelling Up and Regeneration Bill. These powers open the door for the Government to weaken these vital laws with little parliamentary scrutiny. If the Habitats Regulations were to be revoked or key aspects repealed or significantly reformed, the UK’s most effective legal protections for important terrestrial, freshwater and marine habitats and species, and the legal framework, including the assessment of impacts on protected sites requirements, would be lost.

The loss of protections for listed rare and vulnerable species and all bird species (including the prohibition of disturbance to habitats, the legal requirement for compensation when habitat loss does occur in the absence of less damaging alternatives and if Imperative Reasons of Overriding Public Interest (IROPI) is established, and strict licensing requirements), would lead to further declines in wildlife populations in the UK. Species protected by the Habitats Regulations include hazel dormice, harbour porpoise, all UK bat species, otter, kingfisher, common scoter, shore dock (*Rumex rupestris*), Atlantic salmon, and Killarney fern (*Trichomanes speciosum*).

**Strict legal protection for all species currently listed in the Habitats Regulations (European Protected Species or EPS) must be maintained and strengthened through more robust protection and management measures**, with any impacts on local populations and wider meta-populations mitigated by robust, scientifically-proven beneficial compensation measures.

There are several other non-legislative improvements that should be implemented without delay to improve species protection and conservation, including:

- **The current licensing regime needs substantial improvement to ensure consistency and effectiveness for species conservation.** Clear guidance around licensing with allowing loss of habitats as a last resort rather than business as usual. Licences are not always based on evidence and appropriate environmental information, and where there is a lack of evidence, the precautionary principle is not always applied. Licences, specifically general licences, are rarely, if ever, monitored for compliance and for their effects on species and their conservation status. There is little to no enforcement of the licensing regime. Regular monitoring and reporting are also required to assess and report on compliance with licensing decisions and operations. Enforcement action should be taken when necessary. Natural England should be required to conduct monitoring, reporting and enforcement of the licensing regime and should be better resourced to do this work, and there is also scope for other accredited organisations, such as eNGOs, to assist and provide expertise.
- **Improved enforcement of species protections**, through sentencing guidelines, clarifying the interpretation of ‘significance of impacts/harm’ and making offences notifiable. Natural England’s functions have also suffered from a lack of funding over the last decade: a decline of 72% from 2010 to 2019.<sup>30</sup> The body has not been able to properly fulfil its statutory duties including exercising its regulatory and enforcement tools to secure the good management of SSSIs (these tools have been used on 9 occasions in the last 20 years, covering 0.2% of SSSIs).<sup>31</sup> The Government must properly resource Natural England so that it has the capacity and skills to carry out enforcement when necessary.

<sup>30</sup> <https://www.uncned.uk/wp-content/uploads/2020/11/The-UKs-Environment-Gap-2020.pdf>

<sup>31</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1137223/annual-environment-report-2018-to-2022.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1137223/annual-environment-report-2018-to-2022.pdf)





- **We welcome the introduction of Species Conservation Strategies, but there must be clear and effective measures to halt declines and drive recovery.** Species Conservation Strategies should identify the range of measures needed to conserve species, which will include an area and extent of protected habitat, use of protected species legislation and regulation, incentivising land management through ELM and other financial incentives, advice and public engagement. These should be developed alongside clear conservation objectives, such as a definition of Favourable Conservation Status (FCS), and mapping and modelling that allows areas to be targeted for conservation action. Supported by additional and sufficient resources and in collaboration with relevant eNGOs, Natural England should be obliged to draft the required Species Conservation Strategies and create costed plans with specific actions to put species on a journey to recovery and achieving FCS. All public authorities, landowners and managers of protected sites should have a duty to implement the relevant actions in Species Conservation Strategies alongside monitoring of the species concerned.

While effectively implementing and enforcing existing legislation to protect and conserve species is crucial to tackling the urgent and immediate nature crisis and achieving the species abundance targets, and large-scale reform of species legislation could distract from and delay the most important job of protecting and recovering nature on the ground, **we have also identified ways in which species legislation could be further strengthened,<sup>32</sup> if there were to be reform,** including:

- Bolstered monitoring and evidence required to underpin the legislation and the listing of species to ensure the list of protected species is robust and as complete as possible, welfare considerations (which are currently not well addressed in the Wildlife and Countryside Act 1981).
- The recognition of the importance of species' habitat (also not well addressed in the Wildlife and Countryside Act 1981).
- In line with the Environment, Food and Rural Affairs Committee's recommendation that bespoke primary legislation is brought forward by Government to protect marine mammals,<sup>33</sup> new legal protections must be implemented in law including, but not limited to, protections against disturbance, against bycatch, a captivity ban, against excess underwater noise and to reform trade policy to promote the protection of marine mammals around the world.

Current species legislation focuses on preventing harm and protections; these can play a significant role in preventing declines but are often less effective for achieving recovery for thriving wildlife populations. **If there were to be more whole-scale reform of species protections, the legislation could be redesigned to protect as well as drive positive action to improve the status of species.** Achieving Favourable Conservation Status (FCS) should be established in law as a guiding principle for species and habitat conservation, including as one of the factors informing which species are protected. Decisions which impact on species' populations (including local populations) and sustainability, including planning, licensing, and sustainable hunting, should be assessed against the relevant FCS objectives.

<sup>32</sup> Also see the Law Commission's report and recommendations from 2015 in the section relating to possible legislative revisions <https://www.lawcom.gov.uk/project/wildlife-law/>.

<sup>33</sup> <https://committees.parliament.uk/publications/40588/documents/197985/default/>

### Improve species monitoring and environmental data:

Natural England's functions have suffered from a lack of funding over the last decade: a decline of 72% from 2010 to 2019.<sup>34</sup> The body has not been able to properly fulfill its statutory duties such as the monitoring of SSSIs (78% of SSSIs have not been monitored in the last 6 years<sup>35</sup>) and exercising its regulatory and enforcement tools to secure the good management of SSSIs (these tools have been used on 9 occasions in the last 20 years, covering 0.2% of SSSIs).<sup>36</sup>

**Significantly increased resources and the right skills and expertise in Natural England to conduct monitoring, especially of underrepresented taxa, will be needed to support better species monitoring in England.** Natural England should be required and better resourced to do this work in partnership with (and providing resources to) relevant expert eNGOs, Local Environmental Record Centres, and academic institutions (e.g., Open University's Floodplain Meadow Partnership).

JNCC is also a key organisation for delivering species and environmental monitoring in England, including in the marine environment and of Marine Protected Areas (MPAs), as part of its remit to maintain surveillance schemes to assess change in species at the UK level, to develop methods to help detect habitat change across the UK and to enhance data on environmental pressures that affect biodiversity.<sup>37</sup> By supporting monitoring across the UK, and in partnership with eNGOs, particularly those which contribute to biodiversity surveillance schemes, **increased investment in JNCC has the potential to increase national monitoring capability across the sector.**

There are other opportunities for the Government to improve species monitoring, such as setting data standards and creating a UK data portal. **We urge the Government to review and implement the recommendations of the Geospatial Commission's report on Mapping the Species Data Pathway.**<sup>38</sup>

### Increased funding for species recovery:

Sustainable, statutory funding and resources for targeted species recovery is needed, beyond just funding from licensing and one-off funds.

We welcome the £25 million Species Survival Fund, which can have large benefits for wildlife, but to reverse the decline of nature, what is needed is long-term, consistent investment which matches the scale of need. This must cover ongoing management and monitoring as well as one-off capital works, and be available to advisors as well as primary landowners.

We also welcomed Species Recovery Programme Capital Grant Scheme, but the structure of this scheme, as well as the Species Survival Fund, and the lack of join-up between them, will under-deliver for species recovery. Feedback from these schemes should be considered when designing any

<sup>34</sup> <https://www.uncned.gov.uk/wp-content/uploads/2020/11/Therapeutic-Enforcement-Gap-2020.pdf>

<sup>35</sup> <https://questions-statements.parliament.uk/written-questions/detail/2021-02-09/151834>

<sup>36</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1137223/annual-enforcement-report-2018-to-2022.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1137223/annual-enforcement-report-2018-to-2022.pdf)

<sup>37</sup> JNCC Together for Nature 2023-2030 - <https://data.jncc.gov.uk/data/ccb9f624-7121-4c32-aefa-e0579d7eaaa1/together-for-nature.pdf>

<sup>38</sup> <https://www.gov.uk/government/publications/map-ping-the-species-data-pathway-co-nec-ti-ng-species-data-flows-in-england/map-ping-the-species-data-pathway-co-nec-ti-ng-species-data-flows-in-england-executive-summary-and-technical-summary-and-recommendations#executive-summary>

future funding initiatives, paying attention for example to the timescale for grant application and delivery, and allowing for the true costs of delivery to be better accounted for."

**We urge the Government to set out and deliver the long-term investment needed to achieve the species abundance targets, including for targeted species recovery.**

Enhance biosecurity and tackle invasive non-native species (EIP Goal 9):

The Environmental Improvement Plan acknowledges that its delivery relies on 'reducing the key drivers of habitat and species decline', including reducing threats from invasive non-native species (INNS). INNS are one of the top drivers of biodiversity loss and species extinction worldwide, and are responsible for driving species loss across habitats in England. For example, the predation of non-native flatworms on native earthworm populations, the predation of non-native American mink on our native endangered water voles, and the impacts of the accidentally imported fungus-like pathogen *Phytophthora austrocedri* which infects and causes dieback in juniper trees. The impacts of INNS will only worsen with climate change, as warmer conditions and ecological disruption assist species introduction and establishment.

However, biosecurity measures have thus far proven insufficient to prevent the arrival, establishment and spread of INNS.<sup>39</sup> INNS biosecurity is currently severely under-funded and under-resourced; INNS receive less than 1% of the UK biosecurity budget. This is also the only UK biosecurity department without a dedicated inspectorate, despite INNS costing the UK at least £4 billion each year.<sup>40</sup>

**To effectively manage the threat INNS pose to species abundance, the INNS biosecurity budget should be tripled to £6 million, as per the Environmental Audit Committee's 2019 recommendations.** This increased funding should support the development of a dedicated INNS inspectorate. An INNS inspectorate is currently being piloted as a three-year trial; this inspectorate should be made permanent, and given greater powers to prevent INNS introductions at the border, and to coordinate rapid response. Preventing invasive species from arriving and establishing in the first place is both more effective and efficient than attempting to manage or eradicate them once they have arrived. This investment would reduce the number of new establishments by 50-67% and provide a return on investment of at least £23 for every £1 spent.<sup>41</sup>

Other EIP topics:

Across the EIP, it is not clear to us how all the actions will add up to delivering the Government's species abundance targets. We would like to see a strategic and costed plan to deliver and monitor progress towards the species abundance targets, as well as the Environment Act targets and EIP commitments.

<sup>39</sup> JNCC. (2022). 'Pressure from invasive species'. <https://jncc.gov.uk/our-work/ukbi-b6-invasive-species/>

<sup>40</sup> The Guardian. (2023). 'Japanese knotweed and other invasive species may be costing UK £4bn a year'.

<https://www.theguardian.com/environment/2023/jul/06/japanese-knotweed-invasive-non-native-species-costing-uk-4bn-a-year-ash-dieback>

<sup>41</sup> Wildlife and Countryside Link. (2020). 'Prevention is Better Than Cure'.

<https://www.wc.london.gov.uk/docs/P-revention-is-Better-than-Cure-Report-2020.pdf>

Terrestrial:*Strengthen and expand the terrestrial protected sites network:*

An effective terrestrial protected site network is essential to recovering habitats and wildlife in the face of the ever-declining state of nature in England and achieving the species abundance targets.<sup>42</sup> The Making Space for Nature Report found that SSSIs support the majority of the species found in England. For example, 88% of the UK's vascular plants, 70% of threatened bryophytes and 100% of BAP butterfly species are represented in the SSSI network.<sup>43</sup>

Protected areas are the lifeboats where threatened species are hanging on as habitats have been destroyed and fragmented outside their boundaries. SSSIs cover approximately 50% of habitat considered to be of conservation priority in England, including 95% of key coastal habitat (for which England is of international importance), 86% woodland and 72% heathland. These are the habitats that harbour England's most threatened species and these are the places where species can recover and re-colonise the wider environment, but only if we improve their condition.

Scientists have found a positive relationship between protected area capacity and resources and changes in vertebrate abundance, consistent with the hypothesis that if protected areas are adequately resourced they can help halt biodiversity loss.<sup>44</sup>

Currently, however, the majority of protected terrestrial sites in England are in poor condition for nature. Only 37% of SSSIs are in favourable condition for nature.<sup>45</sup> While 49.8% of SSSIs are classed by Natural England as 'Unfavourable – Recovering',<sup>46</sup> until recently this status has only meant that these sites are covered by a management agreement, not that the management plan is comprehensive, being implemented, or that the habitats and wildlife on these sites are genuinely recovering. Therefore, there can be no confidence in the condition of SSI units assessed as 'Recovering' in all but the most recent assessments. 90% of SSSI units classified as 'river' in England are in unfavourable condition.<sup>47</sup> In reality, the condition of SSSIs is largely unknown and the true figures could be much lower, as only 22% of SSSIs have been monitored in the past six years. Protection from harm is not always secured and can be inconsistent.<sup>48</sup>

Also, the terrestrial protected site network only covers 8% of England, much lower than the minimum of 16% of land that scientific evidence suggests and should be strictly protected and managed for nature to create a resilient ecological network in England.<sup>49</sup> The protected site network does also not sufficiently cover and deliver for our most threatened species, especially overlooked taxa such as plants and invertebrates.

**To make a genuine difference for nature and ensure the terrestrial protected sites network in England is effective and fit for the future, the existing terrestrial protected sites network in England must be strengthened, brought into good condition, and completed.**

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<sup>42</sup> <https://www.rspb.org.uk/our-work/state-of-nature-report/>

<sup>43</sup>

<https://webarchive.nationalarchives.gov.uk/ukgwa/20130402170324/http://arc.hive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf>

<sup>44</sup> <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/cons.12434>

<sup>45</sup> <https://designatedsites.naturalengland.org.uk/ReportFeatureConditioSummary.aspx?SiteType=ALL>

<sup>46</sup> <https://designatedsites.naturalengland.org.uk/ReportFeatureConditioSummary.aspx?SiteType=ALL>

<sup>47</sup> <https://www.gov.uk/government/publications/state-of-the-water-environment-indicator-b3-supporting-evidence/state-of-the-water-environment-indicator-b3-supporting-evidence#groundwater-quantitative-and-chemical-classification%20#:~:text=Truble%20waters%20is%20a%20project,quality%20issues%20currently%20facilitating%20our>

<sup>48</sup> <https://www.theyorkforyou.com/wrants/?id=2021-02-09.151834.h&s=%27SSIs%27#151834.r0>

<sup>49</sup> <https://besjournal.soclinelibrary.wiley.com/doi/full/10.1111/1365-2664.13196>

Multiple Government reviews have also found the Habitats Regulations, including the site protection rules for Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), to be fit-for-purpose. There is robust evidence that SACs and SPAs are the most effective site protections. A recent RSPB study found that numbers of threatened birds are higher both within and in a 5km buffer zone around a protected area<sup>50</sup> and a British Trust for Ornithology (BTO) study found that study sites with a greater proportion of protected land are home to higher numbers and more species of birds.<sup>51</sup> Defra's 2012 review (as well as the two previous reviews) concluded that 'in the large majority of cases the implementation of the Directives is working well, allowing both development of key infrastructure and ensuring that a high level of environmental protection is maintained.'<sup>52</sup> Where costs and delays for developers do arise, the review points to these issues as stemming from implementation.

SACs and SPAs laws are fit-for-purpose, but could be better implemented. **The Habitats Regulations should be retained, strengthened and better implemented to improve their effectiveness for nature, people, and those interacting with the regulatory regime.**<sup>53</sup>

All protected sites in England must be brought into good condition through implementing and investing in Protected Site Strategies, delivering the actions in Site Improvement Plans, utilising other management tools, and implementing a programme of regular monitoring. All important species must be identified on existing sites for appropriate management and monitoring. We welcome the SSSI condition targets in the Environmental Improvement Plan for all SSSIs to have an up-to-date condition assessment and for 50% of SSSIs to have actions on track to achieve favourable condition by 31 January 2028, but these interim targets set out in the EIP are no substitute for legally-binding targets. The Government should set a target that at least 75% of the SSSI network should be in favourable condition by 2042. This should be set as a legally binding target for the condition of terrestrial protected areas should be set under the Environment Act powers as a matter of urgency to ensure that these sites are able to drive nature's recovery.<sup>54</sup>

Protected sites are not always delivering for species, at least for some taxa. All relevant protected sites should be used for species recovery, but there can be a disconnect between the sites objectives and the habitat management delivered.

Not all relevant SSSIs have been notified for relevant interest features, which can result in a species not being included for monitoring and appropriate management. Site documentation often does not list all the relevant interest features or outline the detail necessary to monitor the species, impeding good monitoring and appropriate management. For example, many invertebrates, reptiles and amphibians are not notified on individual SSSIs although they might be relevant species. This can lead to inappropriate management and can lead to declines, and in some cases such as the adder, even extinction, in some units or protected sites (e.g., adders at Greenham and Crookham Common SSSI).

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<sup>50</sup> <https://www.rspb.org.uk/about-the-rspb/about-us/media-centre/press-releases/uk-protected-sites-deliver-far-reaching-benefits-for-birds-say-lan-dmark-n-ew-studies/>

<sup>51</sup> <https://www.rspb.org.uk/about-the-rspb/about-us/media-centre/press-releases/uk-protected-sites-deliver-far-reaching-benefits-for-birds-say-lan-dmark-n-ew-studies/>

<sup>52</sup> <https://www.gov.uk/government/publications/report-of-the-habitats-and-wildbirds-directive-implementation-review>

<sup>53</sup> Further suggestions for improving implementation and strengthening the Habitats Regulations can be found in this Link briefing:

<https://www.wcilo.gov.uk/docs/Link%20briefing%20on%20Habitats%20Regs%20risks%20and%20opportunities%20Jan%202023.pdf>

<https://www.wildlifeandcountryside.gov.uk/docs/default-source/2023/01/16/20Biodiversity%20Targets%20SI%20briefing%20for%20Parliamentarians%20Link%20and%20Green%20UK%202020.01.23.pdf>

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The current protected area portfolio does also not sufficiently cover our most threatened species. A recent analysis by the British Ecological Society of 5,254 habitat specialist species (covering reptiles, amphibians, bryophytes, lichens, insects, and non-insect invertebrates) in statutory protected sites found that representation (measured as the proportion of each species' predicted suitable habitat that overlaps with statutory protected sites) is less than 10% of species' potential habitat.<sup>55</sup>

Another example of a gap in the protected sites network in the freshwater environment is chalk streams. Of the 250 chalk streams known globally, 85% are found in England. Chalk streams are among the most biodiverse of freshwater habitats, providing valuable habitat for iconic species including Atlantic salmon, wild brown trout and grayling, otters, kingfishers and water voles. Yet very few chalk streams in England are currently designated and protected as SSSIs and SACs, which means they do not enjoy the same levels of protection and prioritisation as other high-value nature sites. This leaves them vulnerable to the threats of over-abstraction, habitat degradation, and sewage, chemical, and agricultural pollution.<sup>56</sup>

**The terrestrial protected site network should be completed by implementing Natural England's review of SSSIs and the UK SPA Reviews and by setting out an expedited process for designating sites.** The recommendations from the UK SPA Review in 2016 have still not been published or implemented. To make matters worse, many of the recommendations from the previous review in 2011 have also not been implemented. These reviews, carried out by a working group of leading experts, have found critical gaps in England's protected sites network for many of our most vulnerable species including curlews, hen harriers and puffins.

There are many other important sites for nature that have been identified but not designated, such as ancient woodland, important wetlands sites, including new potential Ramsar sites, Important Invertebrate Areas and Important Plant Areas. There should also be a targeted review of protected sites for taxa with inadequate coverage and representation, such as invertebrates, lichens and fungi.

The partially completed Natural England review of the SSSI network should be completed and implemented. We welcome the revision of the SSSI site selection guidelines for a range of species and habitats, which updates, in some circumstances, guidance produced in 1989.

The terrestrial protected sites network (SACs, SPAs, SSSIs and Ramsar sites) should cover a much greater extent of terrestrial and freshwater habitats, comprehensively protecting rare and significant habitats and species, rather than a partial series of representative sites. A protected site network of c.16% of England is needed to support ecological recovery and should make up the core of the commitment to protect 30% of England's land by 2030.<sup>57</sup>

*Delivering at least 30% of land effectively protected for nature by 2030:*

In addition to the core protected sites network, more space for nature is required. The UK Government has committed internationally and domestically to effectively protecting at least 30% of land and sea for nature by 2030. If implemented meaningfully in England to ensure at least 30% of land is protected in the long-term for nature, well-managed for nature and regularly monitored to

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<sup>55</sup> [https://www.britishecologicalsociety.org/wp-content/uploads/2022/04/BES\\_Protected\\_Areas\\_Report.pdf](https://www.britishecologicalsociety.org/wp-content/uploads/2022/04/BES_Protected_Areas_Report.pdf)

<sup>56</sup> For further information and recommendations for protecting chalk streams:  
<https://catchmentbasedapproach.org/learn/chalk-stream-strategy-3/>

<sup>57</sup> <https://besjournal.org.uk/online-library/wiley.com/doi/full/10.1111/1365-2664.13196>

demonstrate good or recovering ecological condition, this pledge could make a significant contribution to nature's recovery.

Protected landscapes in England have the potential to be extraordinary places for nature and efforts are being made to improve National Parks and AONBs for biodiversity. Currently, however, in many cases, nature in conservation sites within protected landscapes is in poorer condition than nature in sites outside them.<sup>58 59</sup> **With the right reforms and the right tools, duties and resources in place, there is potential to deliver the changes needed to support large portions of National Parks and AONBs to meet the 30x30 criteria and make a significant contribution to nature recovery and the species abundance targets.** Protected landscapes should be strengthened for nature by:

- Giving National Parks and AONBs new powers to recover nature. The Government should accept Lord Randall's amendment in the Levelling Up Bill which would implement this change.
- Giving all relevant bodies strengthened duties to 'further' the purposes of protected landscapes.
- Strengthening Management Plans with clear targets and priorities for nature recovery.
- Increasing the funding for National Parks, and in particular AONBs, to support protected landscapes in delivering for nature.

Outside of protected areas (protected sites and protected landscapes in England), Other Effective area-based Conservation Measures (OECMs) that are well-managed and subject to regular monitoring that demonstrate good biodiversity outcomes could also count towards the 30% target and make an important contribution to the species abundance targets. **The 30x30 pledge and OECM assessment should be used to leverage other site designations and private land into delivering more for nature and species**, such as National Nature Reserves, Local Nature Reserves, Local Wildlife Sites, conservation covenants, land owned by conservation NGOs, and land owned by other Government departments and bodies, such as Ministry of Defence or water companies.

The 30x30 commitment should effectively protect the most valuable sites for nature in England to create a resilient, thriving connected ecological network, connected and buffered by the wider Nature Recovery Network on land, and supported by the integration of nature across the country.

*Ensuring other environmental policies are delivering for species:*

**The land use framework together with Local Nature Recovery Strategies should also be used to identify the most important locations for habitats, species and connectivity across the country to help strategically plan the expansion of the protected sites network and to help reconcile other land uses to ensure at least 30% of England's land is effectively protected for nature.** Continuing to expand and protect more of our landscape, including creating buffer zones around protected sites, is key to reaching 30% by 2030 and should continue as a long-term aim.

Local Nature Recovery Strategies (LNRSs) will make an important contribution to achieving species abundance targets. However, there are currently **several omissions in the implementation of LNRSs that must be rectified through further guidance and Government acceptance of an amendment to**

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<sup>58</sup>

<https://www.np.org.uk/sites/default/files/uploads/files/Raising%20the%20bar%20improving%20wildlife%20in%20our%20NationalParks.pdf>

<sup>59</sup> <https://www.cnp.org.uk/news/news-data-shows-why-nature-recovery-legislation-urgently-needed>



**the Levelling Up and Regeneration Bill** to ensure LNRs deliver for species and are not just documents gathering dust on a shelf. The Government must address:

- The lack of connectivity within LNRs, by providing central direction for LNRs in further guidance, to ensure that all 48 LNRs in England connect across LNR area borders and add up to delivering the Environment Act targets, including the species abundance targets.
- The lack of transparency and consistency by providing a shared digital platform to host all the LNRs in England, enabling greater data-sharing, public engagement, and transparency.
- The lack of weight for LNRs in the planning system, by introducing a stronger duty for LNRs to be implemented in local development plans. The Government should accept Baroness Parminter's amendment to the Levelling Up and Regeneration Bill.

Species must be better integrated into planning and design of development and infrastructure, including through **mandating and mainstreaming nature-friendly design in all new developments to support species as a priority**. We urge the Government to add a specific reference to the mitigation hierarchy in the NPPF, prioritising avoiding harm, then interventions to minimise or compensate for impacts, and finally, opportunities to contribute to the recovery of nature. The Government should also mandate nature-friendly design in all new developments such the provision for nature within built structure design, including swift bricks and bat boxes.

The Environmental Land Management (ELM) scheme has the potential to make a significant contribution to nature's recovery, including achieving the species abundance targets. There is growing evidence that well-designed agri-environment schemes can help support farmland biodiversity, if they are deployed in sufficient quantity as well as quality.<sup>60, 61</sup> Therefore, **ELM schemes must be well-supported with sufficient funding, good advice, and effective monitoring and evaluation so that they deliver effective management for nature in the long-term**. A major increase in public spending for nature, doubling the nature-friendly farming budget is necessary to pay for an increase in ambitious agroecological action and large-scale nature restoration.

### Freshwater

Nature's recovery across freshwater habitats will require more than reducing specific pollutant loads, or targeting improvements where they are easiest to make. To meet Government's species abundance targets will require a comprehensive approach that systematically addresses and removes threats so that waterbodies can recover. **This must be driven by the introduction of an overall or 'apex' target for water under the Environment Act**, to fill the gap that will be left when the influence of the WFD targets wane, post-2027.

This apex target for water, if ecologically based, will drive holistic action to improve the freshwater environment, and to manage this for nature's recovery. It will provide the scrutiny and accountability required to drive private sector investment for nature's recovery, and will also provide certainty for businesses and other stakeholders.

To meet the Government's species abundance targets, the state of freshwater habitats must be improved. 90% of river SSSIs in England are currently considered to be in 'unfavourable' condition, and at least 41% of WFD waterbodies are impacted by physical modifications to their natural

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<sup>60</sup>Baker et al (2012) 'Landscape-scale responses of birds to agri-environment management: a test of the English Environmental Stewardship scheme'

<https://doi.org/10.1111/j.1365-2664.2012.02161.x>

<sup>61</sup>Franks et al (2018) 'Evaluating the effectiveness of conservation measures for European grassland-breeding waders' <https://doi.org/10.1002/ec.e3.4532>

integrity and function.<sup>62</sup> For example, due to the construction of weirs and dams that make stretches of river impassable to fish, or river channel dredging and dredged channel maintenance resulting in lower diversity and density of fish spawning and growing habitats and freshwater invertebrates, and the loss of aquatic plant communities.<sup>63</sup> An ambitious programme to improve the condition of water protected sites, and to reconnect and restore the wider water landscape, is required. This should include the **creation and restoration of at least 250,000 ha. of priority wetland habitat in England by 2030**, with a strong focus on habitat creation within river valleys.<sup>64</sup> This should include headwaters, floodplains, and pond creation. As discussed, the protected site network must also be expanded to include further chalk streams.

In addition to creating and restoring freshwater habitats, the wider landscape must also be managed for better environmental outcomes to improve species abundance. Diffuse agricultural pollution contributes to at least 40% of waters failing to meet Good Ecological Status, with nitrogen and phosphorus runoff from fertilisers, manure and slurry causing eutrophication and harming aquatic wildlife.<sup>65</sup> **Ambitious, water-focused and spatially targeted actions must be embedded within ELM** to incentivise land managers to deliver regenerative, catchment-sensitive farming, and to better manage and mitigate pollution through mandatory nutrient management planning. For example, this should include incentives for treatment wetlands, natural flood management, buffer strips along watercourses, and catchment and nature-based solutions to restore soil and wetland health.

Government must **sufficiently fund and resource the regulators** to provide advice to land and water managers and encourage uptake, in addition to delivering an effective monitoring and enforcement regime to ensure crucial environmental regulations are upheld. In 2022, 4,000 farm inspections were carried out by the Environment Agency – this is just 4% of farms in England. These inspections uncovered 48% non-compliance, and led to over 5,500 interventions. However, just 54% of these interventions have been actioned.<sup>66</sup>

As discussed, nutrient pollution is a key driver of the current poor state of freshwater habitats, including protected sites.<sup>67</sup> Inputs of excess nitrogen and phosphorus come not only from agriculture, but also wastewater - both treated and untreated - and urban runoff. This is a catchment-wide problem that requires holistic, catchment-wide solutions.<sup>68</sup> At a minimum, **current nutrient neutrality rules in England must be maintained**, to ensure that development is only allowed to proceed if it does not contribute further nutrient pollution at protected sites. However, these rules will only prevent the situation from getting worse - to tackle existing nutrient pollution, and to drive nature's recovery, a nutrient *negativity* condition on planning permission is required.

Intervention is also needed to enable the use of nature-based solutions across catchments to tackle nutrient pollution. These solutions are often cheaper and more effective than traditional hard-

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<sup>62</sup> [https://www.gov.uk/government/publications/state-of-the-water-environment-indicator-b3-supporting-evidence/state-](https://www.gov.uk/government/publications/state-of-the-water-environment-indicator-b3-supporting-evidence/state-of-the-water-environment-indicator-b3-supporting-evidence#groundwater-quantitative-and-chemical-classification)

[of-the-water-environment-indicator-b3-supporting-evidence#groundwater-quantitative-and-chemical-classification](https://www.gov.uk/government/publications/state-of-the-water-environment-indicator-b3-supporting-evidence/state-of-the-water-environment-indicator-b3-supporting-evidence#groundwater-quantitative-and-chemical-classification)  
<sup>63</sup> CIWEM. (2014). 'Floods and Dredging – a reality check'. <https://www.ciwem.org/assets/pdf/Policy/Reports/Floods-and-Dredging-a-reality-check.pdf>

<sup>64</sup> For further detail, see Blueprint for Water. (2021). 'Actions to recover England's waters and wildlife'. [https://www.wcl.org.uk/docs/WCL\\_Blueprint\\_for\\_Water\\_Vision\\_Report.pdf](https://www.wcl.org.uk/docs/WCL_Blueprint_for_Water_Vision_Report.pdf)

<sup>65</sup> <https://www.gov.uk/government/publications/state-of-the-water-environment-indicator-b3-supporting-evidence/state-of-the-water-environment-indicator-b3-supporting-evidence#groundwater-quantitative-and-chemical-classification>

<sup>66</sup> ENDS Report. (2023). <https://www.endsreport.com/article/1827965/interview-interim-ea-chief-toxic-sewage-debate-one-great-fear>

<sup>67</sup> For example, in May 2023 the River Wye and its tributary, the River Lugg, were downgraded by Natural England to 'unfavourable declining' status. The Wye has become an infamous case study of river pollution, with phosphorus inputs from high-intensity chicken farms resulting in eutrophication and harmful algal blooms.

<sup>68</sup> Environment Agency, (2019). 'Phosphorus and Freshwater Eutrophication Pressure Narrative' [https://consult.environment-agency.gov.uk/environment-and-business/callenges-and-choices/usher\\_uploads/phosphorus-pressure-rbmp-2021.pdf](https://consult.environment-agency.gov.uk/environment-and-business/callenges-and-choices/usher_uploads/phosphorus-pressure-rbmp-2021.pdf)

engineering options, and will deliver multiple benefits for nature, climate and people, compared to expensive concrete and chemical options.<sup>69</sup> Government should **accept Baroness Willis's amendment to Clause 158 under the Levelling-Up and Regeneration Bill to enable the water industry to use these nature-based solutions to manage nutrient pollution** wherever possible.<sup>70</sup>

Work on the River Peterill demonstrates the potential for catchment and nature-based solutions to address nutrient pollution whilst delivering multiple wider benefits, through taking a catchment nutrient balancing approach. The River Petteril catchment in Cumbria was facing high levels of phosphorus pollution, and plans to address this initially focused on upgrading chemical treatment at a number of small rural wastewater treatment works. However, this approach was deemed disproportionately expensive and unsustainable. Efforts therefore focused instead on managing agricultural inputs of phosphorus in the catchment. Delivered in partnership between water company United Utilities and eNGO the Rivers Trust, this included creating ponds to capture and filter water, and investing in on-farm improvements. This approach saved £7 million compared to traditional engineered solutions and had wider benefits for helping tackle flood risk both within the catchment and downstream. It was also successful at reducing nutrient pollution inputs, of 7000 kg/yr of sediment (P source), and 1900 kg/yr of nitrates.<sup>71</sup>

Interventions will also be required to urgently address chemical pollution in water. Research in 2023 has shown that chemical cocktails proven harmful to wildlife and people have been found in 81% of river and lake sites and 74% of groundwater sites across England.<sup>72</sup> As discussed, all English waterbodies currently fail chemical requirements under WFD. Through the upcoming Chemicals Strategy, Government must **place strict controls on the production, use and disposal of groups of harmful chemicals and dangerous chemical cocktails, phase out known toxic chemicals (such as PFAS) from all but vital uses, stop the continued accumulation of legacy chemicals (such as PCBs) in the environment and deliver better monitoring of chemicals in the environment and in biodiversity.** To support this, the National Action Plan on the Sustainable Use of Pesticides must commit to at least a 50% reduction in both pesticide use and toxicity.<sup>73</sup>

## Marine

As noted above, the species abundance target does not adequately cover the marine environment. Notwithstanding this concern, there are some specific policy measures that the Government could introduce to improve the abundance of marine life.

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<sup>69</sup> For example, woodlands and wetlands will not only act as nutrient 'sponges' to reduce pollution entering rivers, but can store carbon, increase resilience to flooding, and create more quality blue space for wildlife and people. E.g. British Ecological Society. (2022). 'Nature-based solutions for climate change in the UK'.

<https://www.britishecologicalsociety.org/wp-content/uploads/2022/02/NbS-Report-Final-Updated-Feb-2022.pdf>

<sup>70</sup> Currently, Clause 158 under LURB prescribes that water companies must take action to tackle nutrient pollution at end of pipe, upgrading wastewater treatment works to meet stricter standards. However, there is a lack of transparency about how these upgrades will be delivered, and the requirements of the LURB clause preclude the use of nature-based solutions across the catchment to tackle nutrient pollution. More information here:

[https://www.wc.l.org.uk/docs/Briefing\\_for\\_LURB\\_Lords\\_report\\_nature\\_recovery\\_07.07.23.pdf](https://www.wc.l.org.uk/docs/Briefing_for_LURB_Lords_report_nature_recovery_07.07.23.pdf)

<sup>71</sup> Further information: <https://getnatureportal.gov.uk/government/case-studies/untreated-utiles-petteril-project/> &

<https://www.unitedutilities.co.uk/globalassets/documents/pdf/pr24---unlocking-nature-based-solutions-to-deliver-greater-value.pdf>

<sup>72</sup> Wildlife and Countryside Link. (2023). 'Toxic chemical cocktails found at over 1,600 river and groundwater sites across England' <https://www.wc.l.org.uk/toxic-chemical-cocktails-in-rivers-across-england.asp>

<sup>73</sup> Further information on what the Chemicals Strategy must deliver in order to address chemical pollution and drive species recovery can be found here: <https://chemtrust.org.uk/wp-content/uploads/12-Key-Asks-for-the-UK-Chemical-Strategy-1.pdf>

**By 2030, at least 30% of English waters should be fully or highly protected in line with IUCN definitions, and managed for nature's recovery.**<sup>74</sup> This means being within fully protected and effectively managed and monitored MPAs or licensed to allow only extremely limited activity, within the context of wider ecologically coherent networks. **As an absolute minimum, a third of this area should be in HPMA where all damaging human pressures and impacts are removed.** This status would provide permanent protection for nature and permanent prohibitions against all extractive or destructive activities. The HPMA programme will therefore need to rapidly expand beyond the initial three pilot sites which cover less than 0.5% of English seas and fall very short of the recommended minimum from the Benyon review.<sup>75</sup> The Marine and Coastal Access Act 2009 could be strengthened - amendments are required for HPMA to ensure they cannot be subject to derogation in the future.

Across the wider MPA network, expectations should be reversed. Rather than permitting activities until they are prohibited, all environmentally harmful activities should be restricted by default unless they are licensed. Utilising scientific assessments based on enhanced monitoring, licensing decisions should be made on a case by case and site by site basis by relevant authorities, with only light extractive activities considered for consent, restricting all heavy extractive and damaging activities. Activities should only be permitted if it can be proven that they neither prevent ecosystem recovery nor inhibit progress towards conservation objectives. All other impacts should be minimised.

The Government should complete the Marine Management Organisation's (MMO) current byelaw programme by **quickly bringing forward protection against damaging fishing activity for the remaining English offshore MPAs, with protections being fully implemented by 2024.** Protections for the initial four sites were delayed, which raises fears that the 2024 date for protecting the whole offshore network will be missed. The whole area of each MPA must be protected from damaging fishing activities, not multiple individual areas around known locations of existing protected features. This not only makes sense from an ecological perspective, but will aid compliance, monitoring and enforcement. To complete the required strengthening of the network and associated protection of marine blue carbon, the Government needs to speedily bring forward full-site closure protections for the remaining offshore English MPAs protected for the seabed and explore all other options to secure urgent protections.

An alternative and complementary approach to byelaws would be to use licensing powers and the ability to place conditions on them. The 2020 Fisheries Act gives the Government additional post-Brexit powers to impose limits on fishing vessel licences of all flags in UK seas. Without going through lengthy consultation processes, placing conditions on licences could be swiftly implemented, revoking permissions to fish in offshore MPAs and offering much needed speedy protection.

Recognising that delivering 30x30 at sea will require significant funding, the Government must provide the resources required for effective management and monitoring of MPAs and also properly fund enforcement agencies to effectively deliver conservation goals.

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<sup>74</sup> The HPMA must meet the IUCN definition of 'fully protected MPAs' to count towards this goal. For full definitions see the Protected Planet Marine Protected Areas Guide <https://www.protectedplanet.net/en/resources/mpa-guide>

<sup>75</sup> <https://www.gov.uk/government/publications/highly-protected-marine-areas-review-2019>

### 3. What are the enablers and barriers to improving species abundance in the terrestrial, freshwater, and marine environment, and achieving the species abundance targets?

#### Enablers:

##### *Nature-based solutions:*

Nature-based solutions will be a key enabler of improving species abundance and achieving Government's targets. Working with nature to tackle societal and environmental challenges is not only often cheaper than traditional, hard-engineering solutions, but crucially delivers multiple benefits for biodiversity, climate, and society. This means that - when used in the right place, and monitored for ongoing efficacy - nature-based solutions can tackle problems such as pollution whilst also contributing to wider species recovery. For example, in the freshwater environment, using wetlands and floodplain meadows to mitigate nutrient pollution can also reduce flood risk, capture carbon, create more habitat for biodiversity, and improve access to quality green and blue spaces for people.<sup>76</sup> Additionally, peatlands can offer nature-based solutions to mitigate and adapt to climate change,<sup>77</sup> while benefiting biodiversity by providing habitat for rare plants and animals,<sup>78</sup> and reducing flood risk.<sup>79</sup> Peatland restoration is essential, but the priority must be to preserve intact peatland and avoid degradation to protect all its ecosystem services and functions.<sup>80</sup>

##### *England's Marine Plans:*

England's Marine Plans must be urgently revised to reflect the climate and nature emergencies. Marine Plans must ensure that the cumulative environmental impacts of increasing demands on the sea are addressed to allow nature to recover, while helping to tackle climate change. This will require undertaking a detailed assessment of the current and future demands for sea space, including the space required for nature's recovery and all other activities at sea, such as offshore wind and sustainable fisheries. Working back from this long-term assessment should form the starting point for revisions of the current marine planning system. Further, marine planning should adopt a more centralised and coordinated approach, ensuring that activities are considered across the whole of our seas. All spatial planning is a form of prioritisation and all prioritisation requires choices between competing demands for space. At sea, there needs to be a clear hierarchy set out in decision making, ensuring that new principles guiding marine planning enable restoration of nature as well as reaching net zero.

##### *Increased access to and connection with nature for people:*

Access to quality green and blue spaces for all will also enable engagement and subsequent action towards measures to support and improve species abundance. Research has shown that visiting natural spaces regularly, and feeling psychologically connected to them, can not only improve mental and physical health and wellbeing, but also fosters pro-environmental behaviours and

<sup>76</sup> WWT. 'Pollution busting wetlands'. <https://features.wwt.org.uk/pollution-busting-wetlands/index.html#:~:text=it%20might%20not%20look%20anyting,thead%20of%20additionaltreatment.>

<sup>77</sup> IUCN 'Peatlands and climate change' <https://www.iucn.org/resources/issuess-brief/peatlands-and-climate-change#:~:text=Peatlands%20are%20a%20type%20of%20wetland%20which%20are,all%20other%20vegetation%20types%20in%20the%20world%20combined.>

<sup>78</sup> <https://www.iucn-uk-peatlandprogramme.org/sites/www.iucn-uk-peatlandprogramme.org/files/Review%20Peatland%20Biodiversity%20June%202011%20Final.pdf>

<sup>79</sup> <https://www.ceh.ac.uk/sites/default/files/Peatland%20factsheet.pdf>

<sup>80</sup> Loisel & Gallego-Sala (2022) 'Ecological resilience of restored peatlands to climate change' <https://www.nature.com/articles/s43247-022-00547-x>

outcomes.<sup>81</sup> Of course, in some cases people's access to sensitive natural environments must be carefully managed or restricted to ensure that vulnerable habitats and species and wild places can thrive.

Public interest - and outrage - in response to the sewage pollution scandal, for example, has been a driving force in encouraging political and industry action to improve water quality.<sup>82</sup> Recreational use and appreciation of the water environment has increased significantly following the COVID-19 pandemic - for example, 7.5 million people engaged in paddling in 2022 alone.<sup>83</sup> There are real wins in encouraging participation in citizen science biodiversity monitoring schemes, which not only provide useful data and information to support environmental monitoring, particularly if contributing to structured or semi-structured schemes such as overseen by JNCC, but also benefits to the participants as well as greater engagement with the environment in general.<sup>84</sup>

#### *Increased and targeted private green finance:*

In the UK, there is a funding gap of more than £19 billion from 2022 to 2032 for biodiversity when comparing existing funds and Government objectives.<sup>85</sup> The Natural Capital Committee has shown that investing in natural capital demonstrates benefit-cost ratios that are at the same scale of other forms of investment such as rail infrastructure and housing.<sup>86</sup> To date, the Government has appeared to rely on voluntary private sector action, but there is good evidence to show that this alone will not achieve the scale of change needed for nature.

For example, thirty years ago, RSPB Lakenheath Fen was intensive arable land. Since then, nearly 400 hectares of nature-rich reedbed, fen and wet grassland have been created. This is now a critical site for UK nature, designed so that threatened species can recover inland - and to shelter them if their coastal homes come under threat. Lakenheath sits in the East Anglian fens, which are rich in carbon and have great potential for nature and biodiversity restoration. There is scope for environmental markets to build on the progress of sites such as Lakenheath, using their existing expertise and economies of scale to deliver rapid environmental improvements and associated credits. But in a drained landscape, this requires land aggregation and capital works to restore whole hydrological units - long-term investments that will only be possible with reliable demand from functioning lowland peat codes and regional BNG markets.

Increased public spending will play a critical role in protecting and restoring ecosystems over the coming decades. But it will also be essential for the private sector to play its part to halt and reverse the decline of nature.

We recommend creating a Nature Recovery Obligation for businesses that are damaging nature through their operations. Just as many businesses are seeking to reach net zero emissions by 2050 in

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<sup>81</sup> For example: Martin et al. (2020). 'Nature contact, nature connectedness and associations with health, wellbeing and pro-environmental behaviours'. <https://www.science.gov/publications/0272494419301185?via%3Dihub>

<sup>82</sup> For example, in 2020/21 over 40,000 people signed the #EndSewagePollution petition to demand water quality legislation. The 2021 RSPB et al. 'Troubled Waters' report showed that 87% of people believe more should be done to help freshwater ecosystems, and that 83% are concerned about the impact of sewage pollution.

<https://www.rspb.org.uk/globalassets/downloads/ur-works/troubled-waters-report#:~:text=Troubled%20waters%20is%20a%20project,quality%20issues%20currently%20facilitating%20ur>

<sup>83</sup> Watersports Participation Survey 2022. (2022). [Watersports Participation Survey 2022 \(britishmarin.co.uk\)](https://www.britishtourism.com/watersports-participation-survey-2022)

<sup>84</sup> Peter et al. 2021 <https://doi.org/10.1002/pan3.10193>

<sup>85</sup> <https://www.greenfinanceinitiative.co.uk/wp-content/uploads/2021/10/Ther-Finance-Gap-for-UK-Nature-13102021.pdf#:~:text=The%20Finance%20Gap%20for%20UK%20Nature%20report%20was%20ordered%20to%20assess%20the%20need%20for%20private%20investment>

<sup>86</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/516725/ncc-state-natural-capital-third-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/516725/ncc-state-natural-capital-third-report.pdf)



line with the UK Government's target, there should also be mandatory requirements for sectors to demonstrate that they are also compatible with the target to halt and reverse the decline of nature by 2030.

Government must play a coordinating role in structuring new markets for investment in nature. Creating thriving environmental markets will require the private sector to be legally compelled to address long-standing market failures by investing in and funding environmental improvement that is large scale and sustained long-term. This will create the demand. We recommend that the Government sets out a major new cross-departmental strategy for stimulating high-integrity environmental markets, going beyond the piloting phase which has been the focus up until now.<sup>87</sup>

In the freshwater environment, the Water Industry National Environment Programme (WINEP)<sup>88</sup> could be better utilised to prioritise nature and drive species recovery. As opposed to focusing predominantly on traditional, hard-engineering solutions to environmental issues - for example, the construction of concrete stormwater tanks - the WINEP could be used to drive the use of catchment and nature-based solutions that would deliver multiple environmental benefits. To encourage the water industry to do so, Ofwat should set an aspirational sector-wide target of 10% of WINEP investment towards catchment and nature-based solutions for AMP8.<sup>89</sup>

#### Barriers:

Some barriers to improving species abundance are covered in more detail in our response to Question 1. These include:

- Significant gaps in the species abundance metric which will be used to assess progress and achievement of the species abundance target. We remain concerned at the poor representation of some important taxa in the indicator, such as the limited number of marine species. This risks species abundance being incorrectly assessed and/or action to protect excluded species, for example in the marine environment, placed on the back burner, at the expense of those species excluded from the metric.
- Lack of high-quality and up-to-date monitoring of species, especially under-represented taxa, and a lack of resources within Natural England to conduct statutory and wider monitoring.
- No strong coherence with the Government's environmental ambitions and the targets framework, for example, there is no legally binding target for the condition of protected sites on land and no overall water target, which are essential to driving action for nature recovery and supporting species abundance.
- Lack of join up between the Government's environmental targets and ambitions and its delivery plans. There is no strategic and costed plan to deliver and monitor progress towards the species abundance targets. Nor is there sufficient integration of species into other environmental and other Government policies (e.g., agriculture, planning and development) and understanding of how they will contribute to achieving the species abundance target.

There is a need for greater clarity in the way that the many measures affecting species recovery work together. There is substantial uncertainty about how Local Nature Recovery

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<sup>87</sup> [https://www.wc.l.org.uk/docs/Reforming\\_environmental\\_markets\\_Link\\_report\\_March\\_2023.pdf](https://www.wc.l.org.uk/docs/Reforming_environmental_markets_Link_report_March_2023.pdf)

<sup>88</sup> The WINEP is the programme of actions water companies need to take to meet statutory environmental obligations, non-statutory environmental requirements or delivery against a water company's statutory functions.

<sup>89</sup> AMP8 refers to the 'asset management period' in the water industry that will run for five years from 1st April 2025. It is anticipated that AMP8 will have a strong climate and environmental focus

Strategies, Species Conservation Strategies, Biodiversity Net Gain and Environmental Land Management schemes should operate both strategically and tactically for species recovery.

The role of each of these policies with respect to species recovery should be mapped out and governed by an overarching principle that there should be defined goals for species recovery, e.g., Favourable Conservation Status, to make explicit links between local and national targets, and setting both long-term and short-term objectives.

#### *Offshore wind:*

The acceleration of offshore wind development may impact nature recovery goals if not planned and regulated effectively. With rapid expansion of offshore wind to meet targets for up to 140GW of offshore wind power by 2050, marine habitats are and will be impacted by this development, particularly with regards to sensitive seabed habitats (many of which are seabird foraging areas) and marine mammals, due to the impacts of noise pollution and physical damage from pile driving and cabling activity on the seabed, and flying species such as bats and birds, from barotrauma and collisions. For example, in the Dowsing, Race Bank and North Ridge SAC, Natural England have found that offshore windfarm turbine infrastructure, including hard substrata in the form of rock protection for cabling protection and scour prevention has “resulted in a cumulative change/loss of approximately 63,089.82 m<sup>2</sup> of Annex I Sandbank habitat and its sub-features over the 25-year lifespan of the project.”

Ministers have stated that they “recognise that there are growing spatial tensions” at sea.<sup>90</sup> While it is true that there are numerous new offshore developments, effective planning can help secure marine protections for nature, offshore wind goals and an ecologically, socially and economically sustainable fisheries sector. However, we must optimise our sea space and consider its carrying capacity, reducing pressures where required in order to meet our aspirations for tackling climate change and biodiversity loss.

#### *Lack of resources and skills for Government bodies and regulators:*

A critical barrier to improving species abundance, and achieving Government’s abundance targets, is the capacity of Government bodies and regulators to support this delivery, including monitoring, advisory, regulatory and enforcement, and delivery functions.

Natural England’s functions have suffered from a lack of funding over the last decade: a decline of 72% from 2010 to 2019.<sup>91</sup> The body has not been able to properly fulfil its statutory duties such as the monitoring of SSSIs (78% of SSSIs have not been monitored in the last 6 years<sup>92</sup>) and exercising its regulatory tools to secure the good management of SSSIs (these tools have been used on 9 occasions in the last 20 years, covering 0.2% of SSSIs).<sup>93</sup>

The Environment Agency’s annual budget in 2022 was 56% lower in real terms than it was in 2009/10.<sup>94</sup> This is a significant cut in funding and resources that is undermining the Agency’s capacity

<sup>90</sup> <https://www.theyworkforyou.com/w/hall/?id=2023-05-02a.1.0&s=%28marine+OR+fish+ing+OR+plants+%29>

<sup>91</sup> <https://www.uncHECKED.uk/wp-content/uploads/2020/11/The-UKs-Environment-Gap-2020.pdf>

<sup>92</sup> <https://questions-statements.parliament.uk/written-questions/detail/2021-02-09/151834>

<sup>93</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1137223/annual-environment-reports-2018-to-2022.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1137223/annual-environment-reports-2018-to-2022.pdf)

<sup>94</sup> <https://www.independent.co.uk/climate-change/new/water-pollution-sewage-environment-agency-funding-b2154848.html>



to effectively monitor and enforce regulation. From 2013-2019, the number of water quality samples taken by the Agency fell 45%, and the number of sampling points by nearly 40%.<sup>95</sup> In 2022, it was reported that Environment Agency staff were being instructed to ignore 'low-impact' water pollution incidents due to capacity issues.<sup>96</sup>

In the freshwater environment, this has led to a concerning reliance on the water industry to self-monitor performance in key areas relating to water quality, such as discharges from wastewater treatment works. Yet in 2022, it was reported that self-monitoring by water companies was a hundred times less likely to detect breaches than testing by the Environment Agency.<sup>97</sup> There is still not 100%, real-time monitoring coverage of all storm and emergency overflows. Where overflows are monitored, this focuses on the frequency and duration of spills rather than volume or load information, which translates poorly to the environmental harm caused.

*Lack of monitoring and environmental information to inform good management:*

Inadequacies in environmental monitoring create further barriers to meeting species abundance targets, due to the challenges this creates with environmental data. Robust data on the state of the environment is essential in order to guide actions to protect and enhance it, targeting improvements where they will have the greatest benefits and ensuring that resources are used with the greatest efficacy. This will be crucial for guiding and assessing progress towards delivery of the species abundance targets. Data is also essential to ensure that key players and stakeholders are held accountable for delivering both environmental and societal obligations, and for being compliant with regulation. To achieve this, data must be accessible, accurate, and comprehensive. The lack of robust, sufficiently-resourced environmental monitoring undermines this.

At sea, a severe lack of monitoring makes it difficult to identify threats and to assess the status of nature's recovery at sea. To determine the benefits of the MPA network for nature, appropriate regular scientific and ecological monitoring is vital. Monitoring should show clear evidence of both good management for nature and that the site is either in good condition or showing demonstrable signs of ecological recovery. Recognising that delivering 30x30 will require significant funding, the Government must deliver the resources required for effective management and properly fund enforcement agencies to deliver conservation goals.

We note the EFRA Committee's recent inquiry on marine mammals which concluded that "We believe investment in new technological solutions is the most effective way of upscaling marine mammal monitoring and filling the data gaps which currently hamper policy responses in this area. Among the most promising technologies are passive acoustic monitoring and the use of low-altitude satellites, while AI could also play a role." We support the Committee's recommendation for increased funding for marine mammal monitoring, in this case they have recommended "ring-fenced funding that at least matches the existing £1.5m Marine NCEA innovation competition."

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<sup>95</sup> Unchecked. (2020). 'The UK's enforcement gap 2020'. <https://www.uncHECKED.uk/wp-content/uploads/2020/11/The-UKs-Enforcement-Gap-2020.pdf>

<sup>96</sup> For example: The Guardian. (2022). 'Environment Agency tells staff to ignore pollution complaints, says ex-employee'. <https://www.theguardian.com/environment/2022/aug/29/environment-agency-tells-staff-to-ignore-river-pollution-complaints-age-of-extinction>

<sup>97</sup> Engineering and Technology. (2022). 'MPs demand action as data calls into question water company self-monitoring'. <https://eandt.thiet.org/content/articles/2022/09/mps-demand-action-as-data-calls-into-question-water-company-self-monitoring/>

*Fishing related deaths of marine mammals - bycatch:*

The Environment, Food, and Rural Affairs (EFRA) Committee's recent report on 'Protecting Marine Mammals in the UK and Abroad', which assessed the risks and conservation measures for marine mammals in the UK, has found a troubling situation for whales and dolphins. The findings reveal that the "current UK legal framework around the protection of marine mammals is incoherent and not sufficient to effectively preserve these precious species." The Committee inquiry highlighted that bycatch, the accidental entanglement of marine life in fishing gear, is the "biggest single threat" to whales and dolphins in UK waters.<sup>98</sup>

A barrier to protecting these species is therefore the Government's reluctance to be seen to be imposing measures onto the fishing industry. This explains the continued delay of promised Government measures to promote remote electronic monitoring (REM) with cameras on vessels.

*Oil and gas exploration*

A further barrier is the Government's continued failure to halt new oil and gas exploration and development in the North Sea. These activities harm marine life through underwater noise, pollution from oil spills and pollution linked to the drilling process.<sup>99</sup> This is not to mention the direct impact on climate change from increasing our reliance on fossil fuels. Climate change is causing dangerous and irreversible effects for marine life including sea-level rises, marine heatwaves, changes to food webs and ocean acidification.

*Environmental deregulation:*

Environmental regulation is essential to the design and delivery of sustainable development for the wellbeing of people, environment and economy. A healthy natural environment is central to meeting the Government's environmental ambitions and legally-binding environmental targets and to people's health and wellbeing, but crucially it is also the prerequisite for a healthy economy and a successful development sector.

Environmental regulation is also vital for and appreciated by businesses. Regulations set out requirements and minimum standards that ensure compliance with environmental law, create a level playing field for the sector, and promote well-designed and sustainable development in the right place, providing certainty and stability for investment. Further benefits of effective environmental regulations include the creation of new jobs and skills and stimulated innovation and investment in the development sector.

Existing environmental regulation in England has been reviewed time and time again and both Government and external reviews have found it fit-for-purpose. While the implementation of environmental regulation in England could be improved, this is an implementation issue, not a fault with the regulations themselves.

The Government should abandon its deregulatory rhetoric and agenda, and instead focus on strengthening and better implementing England's essential environmental regulations of which effective delivery and enforcement will be essential to delivering both the species abundance targets, nature's recovery, and a liveable environment.

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<sup>98</sup> <https://public-accounts.parliament.uk/pa/c-m5803/c-mselec-t/c-menvf-ru/697/report.html>

<sup>99</sup> [https://www.wcilo.org/docs/assets/uploads/WCL\\_Offshore\\_Drilling\\_MP\\_briefing\\_30.09.22.pdf](https://www.wcilo.org/docs/assets/uploads/WCL_Offshore_Drilling_MP_briefing_30.09.22.pdf)

### *Awareness and engagement*

A further barrier to achieving the species abundance targets is a lack of awareness of or engagement with nature's recovery from critical stakeholders and sectors within society. As discussed previously, greater access to and engagement with the environment has been shown to foster pro-environmental behaviours.

For example, in the freshwater environment, nearly a fifth of surface waters and over a quarter of groundwaters do not currently have enough water to meet the needs of fish and other aquatic life.<sup>100</sup> To reduce the threat of over-abstraction, we must reduce water demand and increase water efficiency. Yet a lack of water efficiency technology such as smart meters in homes means that consumers are often not aware of their water usage - 46% of people think their entire household uses less than 20 litres of water a day, when the real figure is around 146 litres per person.<sup>101102</sup> Current Government restrictions on universal water meter rollout should be removed, and public comms and messaging around water saving should not be restricted to times of drought and water scarcity. Smart meters in particular will help consumers engage with their water use and to encourage behaviour change. Fitting 1 million smart water meters in the UK each year for the next 15 years could save at least 1 billion litres of water a day by the mid-2030s.<sup>103</sup>

As discussed, invasive non-native species (INNS) are one of the top 5 drivers of biodiversity loss worldwide, and cost the UK economy at least £4 billion each year.<sup>104</sup> Despite this, awareness of the threat INNS pose is limited in both public and political spheres. For example, it is still possible to buy certain invasive species from garden centres and nurseries.<sup>105</sup> The 2023-2028 UK Plant Biosecurity Strategy continues to exclude the 'prevention of invasive species incursions' from its scope.<sup>106</sup> A fully-funded, permanent INNS inspectorate is required to help build capacity for awareness raising and engagement, further to current initiatives such as the annual 'INNS Week', or campaigns such as 'Be Plant Wise' and 'Check, Clean, Dry'.

### *Barriers to uptake of nature and catchment-based solutions*

Nature and catchment-based solutions provide multiple benefits to wildlife and people, and are often cheaper than traditional, hard-engineering options. For example, as demonstrated in the case of the River Peterill, discussed under Q.2. However, there are barriers preventing their widespread uptake, for example by the water industry.<sup>107</sup>

<sup>100</sup> Defra. (2021). <https://www.gov.uk/government/publications/water-abstraction-plan-2017/water-abstraction-plan>

<sup>101</sup> Water UK. (2020). 'Vast majority of Brits have no idea how much water they use each day'.

<https://www.water.org.uk/news-views-publications/news/vast-majority-brits-have-no-idea-how-much-water-they-use-each-day>

<sup>102</sup> <https://www.statista.com/statistics/1211708/liters-per-day-per-person-water-usage-uk/>

<sup>103</sup> Waterwise and Arqiva. (2021). 'Smart water metering and the climate emergency'.

<https://database.waterwise.org.uk/wp-content/uploads/2021/04/Smart-Metering-and-the-Climate-Emergency-2021-Final-1.pdf>

<sup>104</sup> The Guardian. (2023). 'Japanese knotweed and other invasive species may be costing UK £4bn a year'.

<https://www.theguardian.com/environment/2023/jul/06/japanese-knotweed-invasive-non-native-species-costing-uk-4bn-a-year-ashdieback>

<sup>105</sup> For example, invasive species *Rhododendron ponticum* can be purchased in the UK:

<https://www.rhs.org.uk/plants/nurseries-search-results?query=100610>. In May 2023, Government confirmed they would not be banning its sale: <https://www.theguardian.com/environment/2023/mar/11/government-failing-to-tackle-invasive-rhododendron-in-englands-last-rainforests-aoe>

<sup>106</sup> <https://www.gov.uk/government/publications/plant-biosecurity-strategy-for-great-britain-2023-to-2028>

<sup>107</sup> For example: [https://www.unitedutilities.co.uk/globalassets/documents/pdf/p\\_r24---unlocking-nature-base-d-soil-to-deliver-greater-value.pdf](https://www.unitedutilities.co.uk/globalassets/documents/pdf/p_r24---unlocking-nature-base-d-soil-to-deliver-greater-value.pdf)

As discussed, the Levelling Up and Regeneration Bill currently prescribes that water company action to tackle nutrient pollution must focus on end-of-pipe solutions, upgrading wastewater treatment works to meet stricter standards. This precludes the use of nature-based solutions across the catchment to mitigate nutrient pollution holistically, and will drive the use of expensive grey infrastructure with a large carbon footprint.<sup>108</sup> The Government should accept the Willis amendment to the Levelling Up and Regeneration Bill, which would unlock the use of nature and catchment-based solutions.

Water companies may be dissuaded from including nature-based solutions within their business plans due to how cost benefit assessments are calculated in the Price Review process. Ofwat must incorporate greater consideration of natural capital accounting into this process, to ensure that environmental benefits and risks are fully accounted for, rather than relying on financial cost alone. To encourage the industry to develop nature-based solutions, Ofwat should set an aspirational sector-wide target of 10% of WINEP investment towards catchment and nature-based solutions for AMP8.

#### **4. What are the synergies and trade-offs in improving species abundance in the terrestrial, freshwater, and marine environments, and achieving the species abundance targets?**

##### Synergies:

Freshwater and marine environments form an interconnected water system, flowing from source to sea. Therefore, any improvements made to the quality of freshwater systems, or actions to tackle pollution at source upstream, will directly benefit estuarine and coastal waters and ecosystems downstream. Assumptions that pollution from inland waters will be diluted in ocean water and is therefore insignificant is wholly incorrect and must be challenged. Particularly those chemicals with persistent or bioaccumulative properties tend to have higher concentrations in the marine environment than in freshwater and the longest-lasting effects. For example, research has shown that harmful PFAS chemicals and microplastics accumulate in and continue to cycle through the environment over time.<sup>109</sup> These pollutants must be tackled at source, to the benefit of the entire water system.

Improving species abundance can also benefit habitats and wider ecosystem services. For example, beavers are ecosystem engineers which, if located in the right areas, can change habitats to improve resilience to both floods and droughts, improve water quality, restore degraded habitats, and benefit and engage people.<sup>110</sup>

As discussed under Q.3, nature-based solutions will generate synergies, given that these green solutions will not only tackle the problem at hand - for example, poor water quality - but will drive further benefits for people and nature in doing so. Nature-based solutions should therefore be used wherever possible to help achieve the species abundance targets.

Also as discussed under Q.3, increased access to and connection with nature for people is a win-win situation. Increased provision and quality of nature can improve access to and connection with nature, and increased connection with nature in turn drives pro-environmental behaviour.

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<sup>108</sup> For further detail: [https://www.wc.l.org.uk/docs/Briefing\\_for\\_LURB\\_Lords\\_report\\_nature\\_recovery\\_07.07.23.pdf](https://www.wc.l.org.uk/docs/Briefing_for_LURB_Lords_report_nature_recovery_07.07.23.pdf)

<sup>109</sup> For example: <https://www.theguardian.com/environment/2021/dec/17/pfas-fo-rever-chemicals-continually-cycle-through-ground-air-and-water-study-finds>

<sup>110</sup> <https://www.online.libraries.wiley.com/doi/10.1002/wat2.1494>

### Trade-offs:

While improving the condition of protected sites is essential to improving habitats and contributing to species recovery, if threatened species are not adequately cited and monitored, and thus not well-managed in these areas, there is potential for inappropriate management for these species. For example, adders at Greenham and Crookham Common SSSI, and overlooked taxa such as invertebrates more generally.

Large-scale tree planting is essential to fulfil the Government's tree planting targets, mitigate climate change and provide habitat for woodland species.<sup>111</sup> However, the location of this large-scale planting must be carefully considered when in open country habitats of conservation concern as it could have detrimental effects on open country species such as the curlew or oystercatcher, but the use of modelling can minimise this risk.<sup>112</sup> Wader zonal maps have the potential to inform decisions for the best location of tree planting in England considering bird species reliant on open habitats, and will need the right oversight to ensure that appropriate decisions are made.<sup>113</sup>

## **5. What are the key uncertainties and knowledge gaps in assessing the achievability of the targets?**

### Lack of monitoring and environmental information:

As previously identified, inadequacies in environmental monitoring create further barriers to meeting species abundance targets, due to the challenges this creates with environmental data. Robust data on the state of the environment is essential in order to guide actions to protect and enhance it, targeting improvements where they will have the greatest benefits and ensuring that resources are used with the greatest efficacy. This will be crucial for guiding and assessing progress towards delivery of the species abundance targets. Data is also essential to ensure that key players and stakeholders are held accountable for delivering both environmental and societal obligations, and for being compliant with regulation. To achieve this, data must be accessible, accurate, and comprehensive. The lack of robust, sufficiently-resourced environmental monitoring undermines this. We have detailed and evidenced some of these gaps in our response to Q.2 under 'Improve species monitoring and environmental data' and in our response to Q.3 under 'Barriers.'

### Climate change and its impacts:

This year has seen an extreme marine heatwave in the seas around the UK. Temperatures have been up to 4°C above normal for the time of year in some places.<sup>114</sup> The Environment Agency has warned that "the long-term temperature increase has also increased the frequency of 'marine heatwaves.'

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<sup>111</sup> <https://www.nao.org.uk/wp-content/uploads/2022/03/Tree-planting-in-England-Summary.pdf#:~:text=The%20government%20has%20committed%20to%20increasing%20tree-planting%20rates,million%20trees%20each%20year%2C%20depending%20on%20planting%20density.>

<sup>112</sup> Calladine et al (2022) 'Modelling important areas for breeding waders as a tool to target conservation and minimise conflicts with land use change' <https://doi.org/10.1016/j.jnc.2022.126267>

<sup>113</sup> [New wader zonal maps - helping to ensure new trees are put in the right place. - Forestry Commission \(blog.gov.uk\)](https://www.gov.uk/news/stories/new-wader-zonal-maps-helping-to-ensure-new-trees-are-put-in-the-right-place-forestry-commission-blog)

<sup>114</sup> <https://www.newscientist.com/article/2378819-uk-and-ireland-suffer-one-of-the-most-severe-marine-heatwaves-on-earth/?ptid=7Bkpd%7DAAAAsTOuYHvdQoKc mJhNGYxWmNw ZRI QbGp6c H Y 2N3A xOW UyaTA1d Bo MRV hXUVJKO URF U VQliUxO Dlyc jMw MDhnLTaw MDA z MmFhNGI 1N3Btc T ho aXB qanJp b jR z KhtzaG93VGV tc GxhdGU4NIJVV 0V FSIdCN FU xNTAw ATo MT 1R DTz JDNlc 2NE hGUhJ2L XYA8 Bg4Yz ZmNXIjN3o 4Wgw 4MC44Ny4yNS4x NjJiA2R 3Y 2i05L - lBnAKeAQ>

These events, combined with a range of other pressures from human activities, are threatening species at the edges of their thermal tolerance ranges. The North Sea has been identified as a region where this is having a significant impact.” In addition, warning that “Temperature changes are also very likely to affect the Atlantic Heat Conveyor or Atlantic Meridional Overturning Circulation (AMOC). This important ocean current is projected to weaken during this century as a result of climate change. Changes are already happening but the causes of these are unclear. The AMOC is a major factor in maintaining the climate and marine environment of the UK.”<sup>115</sup>

As the climate warms, terrestrial, freshwater and marine species will be impacted by changing climate, seas and weather patterns. There are important evidence needs with respect to the monitoring and evaluation of climate change adaptation.<sup>116</sup> There is observed evidence of the impacts of climate change on species<sup>117</sup> and studies on future projections,<sup>118</sup> although which are uncertain at the individual species’ level, do provide a strong picture of the sorts of species that are most vulnerable or most likely to benefit that currently accords with observed responses. Further information and monitoring of the impacts on species will be essential and a precautionary approach to terrestrial, freshwater and marine policy which delivers the highest possible protections for species, improved resilience and adaptation for species, and supports ecosystem recovery and resilience, will be essential.

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[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1130743/State\\_of\\_the\\_environment\\_-\\_the\\_coastal\\_and\\_marine\\_environment\\_-\\_report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1130743/State_of_the_environment_-_the_coastal_and_marine_environment_-_report.pdf)

<sup>116</sup> <https://www.sciencedirect.com/science/article/pii/S1470160X22001613?via%3DIuhub>

<sup>117</sup> <https://www.ukri.org/publications/cimate-change-impact-on-biodiversity-lwec-report-cards/>

<sup>118</sup>

<https://www.google.com/url?q=https://doi.org/10.1016/j.biocon.2017.06.035&sa=D&source=docs&ust=1690476822086762&usq=AOvVaw3EuvvmU176jUi-lgiKrwvK>